



AGROMETEOROLOGICAL BULLETIN

August 2022
1st 10-day period

- Temperature
- Relative Humidity
- Soil Temperature
- Sunshine Duration
- Precipitation
- Evaporation
- Growing Degrees
- Reference Evapotranspiration
- Accumulated Rainfall from the beginning of wet period
- Accumulated Reference Evapotranspiration
- Number of dry days



Hellenic National Meteorological Service
Division of Climatology-Applications
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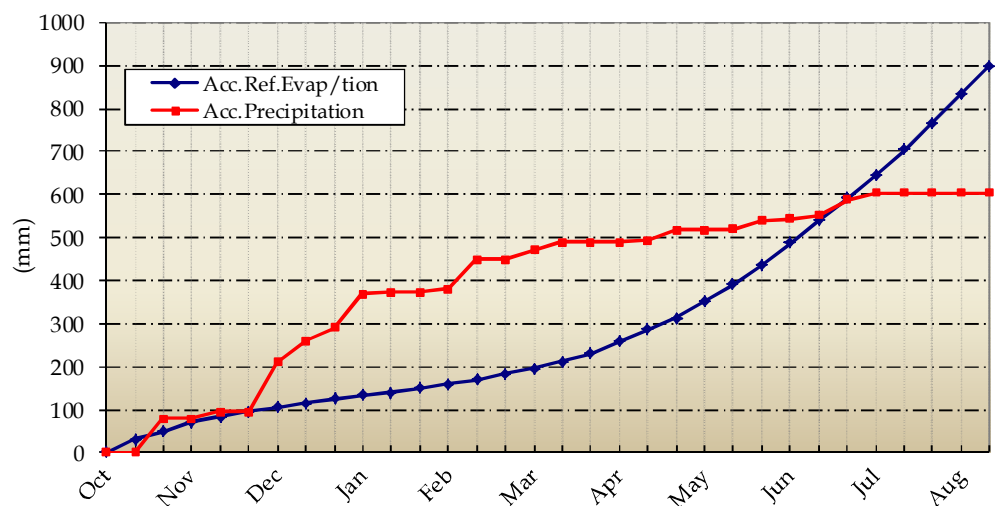
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Alexandroupoli

1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	31.4	32.8	33.6	34.0	34.6	35.4	34.6	34.2	35.8	33.4	34.0	35.0	32.7
	Min	21.0	20.0	21.4	19.2	18.4	22.6	22.4	24.2	17.0	21.8	20.8	21.2	20.2
Relative Humidity	Max	91	82	84	72	82	89	81	58	83	58	78	76	76
	Min	32	28	29	26	34	29	32	26	20	30	29	33	33
Soil Temperature at 10 cm	06 UTC	29.6	29.4	28.4	28.5	26.2	27.8	28.4	28.2	28.0	28.5	28.3	27.1	26.7
	12 UTC	32.2	32.4	31.8	30.0	30.2	31.8	31.4	31.6	32.8	32.2	31.6	30.3	30.4
Sunshine Duration		12.0	9.5	13.2	12.8	12.5	12.7	12.6	12.8	12.9	9.8	12.1	11.6	11.5
Precipitation													5.0	5.0
Evaporation		11.3	7.5	9.1	7.5	12.5	11.8	11.7	14.9	13.6	8.7	108.6	94.0	89.9
Growing Degrees	5	21.2	21.4	22.5	21.6	21.5	24.0	23.5	24.2	21.4	22.6	223.9	230.8	194.3
	10	16.2	16.4	17.5	16.6	16.5	19.0	18.5	19.2	16.4	17.6	173.9	180.8	148.9

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	65.8	55.4	50.1
Precipitation - Reference Evapotranspiration	-65.8	-50.4	-45.1
Number of Rainy Days	0.0	1.0	0.7
Number of Dry Days	45.0	33.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

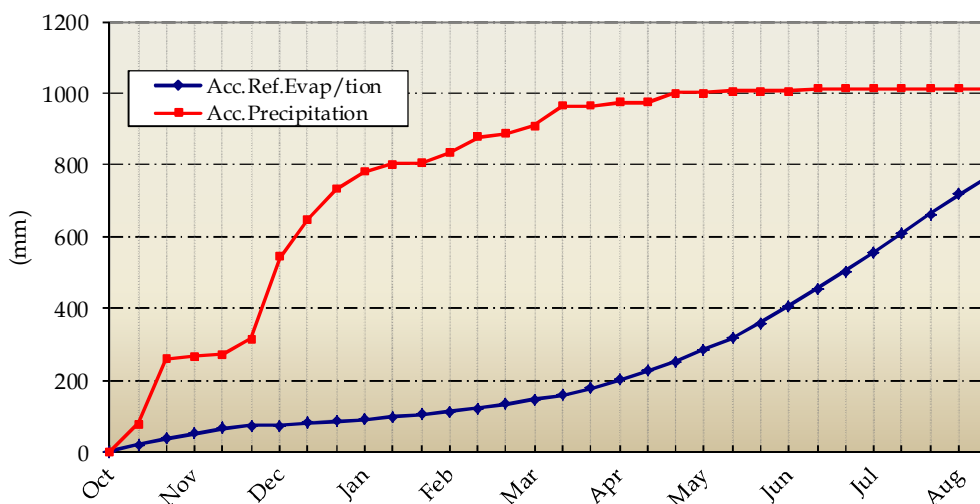


1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	32.4	33.8	33.8	33.6	33.3	33.4	34.5	36.0	34.4	34.9	34.0	36.1	31.8
	Min	21.0	22.2	21.2	19.0	18.5	20.6	20.4	21.1	20.7	18.5	20.3	20.5	19.8
Relative Humidity	Max	92	89	84	87	86	90	85	79	81	79	85	89	88
	Min	51	35	33	35	32	39	35	24	24	21	33	30	39
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	30.7	29.0
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	33.2	34.2
Sunshine Duration		12.8	12.1	12.9	12.8	11.7	11.6	7.8	12.5	12.7	12.4	11.9	12.1	11.9
Precipitation														1.0
Evaporation		-	-	-	-	-	-	-	-	-	-	-	97.4	82.2
Growing Degrees	5	21.7	23.0	22.5	21.3	20.9	22.0	22.5	23.6	22.6	21.7	221.7	233.1	167.9
	10	16.7	18.0	17.5	16.3	15.9	17.0	17.5	18.6	17.6	16.7	171.7	183.1	127.5

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	48.2	49.3	57.9
Precipitation - Reference Evapotranspiration	-48.2	-49.3	-56.9
Number of Rainy Days	0.0	0.0	0.2
Number of Dry Days	61.0	61.0	-

The missing info in the tables are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



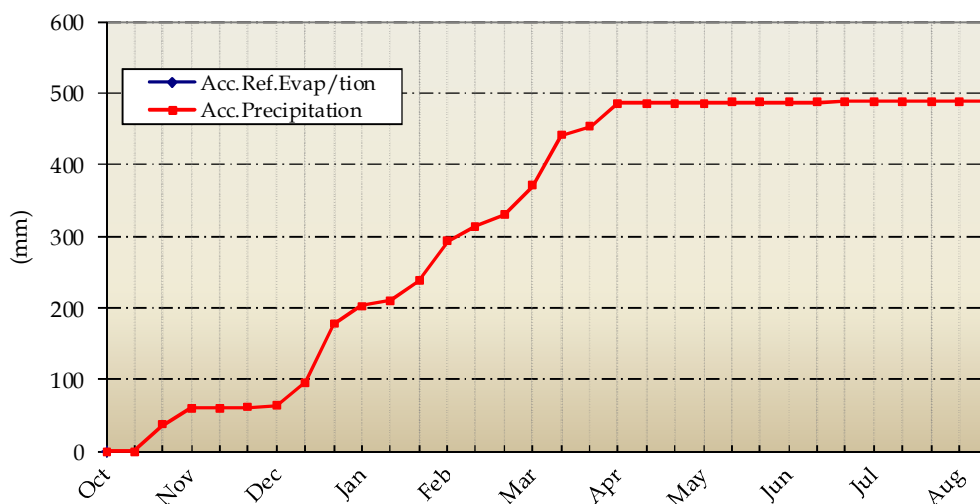
Iraklio

1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	30.2	30.0	29.8	28.0	29.4	29.0	28.8	27.8	30.0	28.6	29.2	34.0	29.5
	Min	23.4	24.6	25.8	25.0	25.0	24.2	25.8	25.2	24.0	22.0	24.5	26.6	23.2
Relative Humidity	Max	79	79	72	72	68	69	76	84	85	75	76	85	79
	Min	54	47	52	58	50	53	59	66	48	53	54	62	55
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		12.5	12.8	12.7	12.8	12.8	12.6	12.5	12.0	12.0	12.7	12.5	12.3	12.0
Precipitation														0.0
Evaporation		6.9	7.9	8.3	9.7	7.8	8.7	4.9	6.5	6.2	7.7	74.6	81.1	71.2
Growing Degrees	5	21.8	22.3	22.8	21.5	22.2	21.6	22.3	21.5	22.0	20.3	218.3	253.1	202.9
	10	16.8	17.3	17.8	16.5	17.2	16.6	17.3	16.5	17.0	15.3	168.3	203.1	155.4

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	-
Number of Rainy Days	0.0	0.0	0.0
Number of Dry Days	59.0	55.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

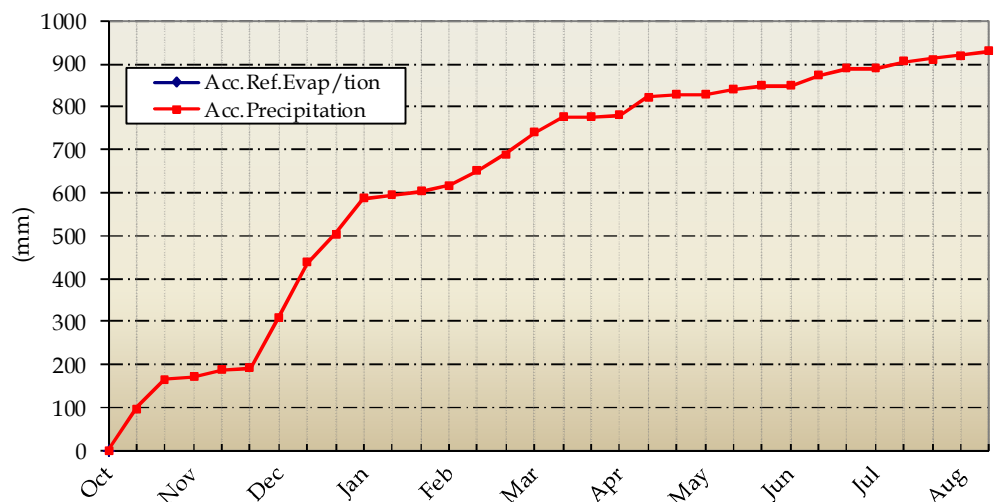


1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	33.7	34.7	33.5	33.7	34.0	34.9	34.2	31.6	33.4	32.7	33.6	38.0	32.1
	Min	17.0	19.6	20.0	14.4	15.0	14.6	18.3	18.1	13.2	14.7	16.5	15.2	16.6
Relative Humidity	Max	90	75	91	91	92	90	100	48	89	90	86	85	88
	Min	36	27	27	30	22	22	29	27	18	24	26	18	35
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	23.5
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	25.7
Sunshine Duration		9.3	11.9	7.9	9.6	10.0	8.7	6.8	11.5	9.9	6.0	9.2	11.6	10.1
Precipitation				0.1				9.4			0.0	9.5		7.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	
Growing Degrees	5	20.4	22.2	21.8	19.1	19.5	19.8	21.3	19.9	18.3	18.7	200.7	216.3	150.1
	10	15.4	17.2	16.8	14.1	14.5	14.8	16.3	14.9	13.3	13.7	150.7	166.3	111.3

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	33.6
Precipitation - Reference Evapotranspiration	-	-	-26.0
Number of Rainy Days	2.0	0.0	1.1
Number of Dry Days	5.0	21.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



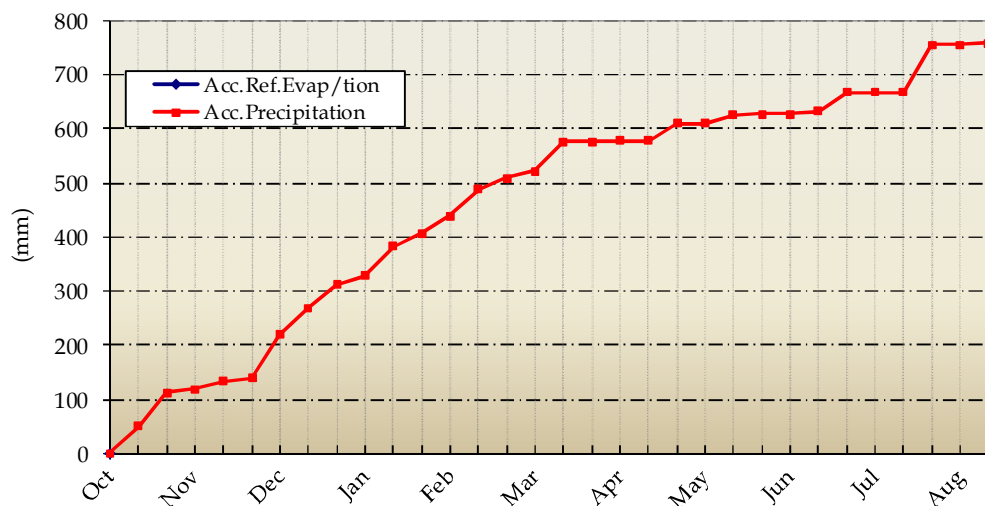
Kalamata

1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	31.7	30.9	35.3	35.8	34.4	37.3	36.6	33.2	34.8	36.8	34.7	36.9	32.7
	Min	19.2	21.7	19.8	20.3	18.9	20.5	21.0	19.0	19.6	18.2	19.8	21.8	19.5
Relative Humidity	Max	94	90	86	76	75	83	92	91	92	72	85	69	86
	Min	48	49	24	24	22	23	26	29	20	16	28	27	35
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	29.0	26.3
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	34.0	29.3
Sunshine Duration		12.7	10.1	12.2	11.5	10.5	9.9	7.2	10.3	12.0	10.6	10.7	11.1	11.3
Precipitation							0.5	1.8	0.2			2.5		3.9
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	69.5
Growing Degrees	5	20.5	21.3	22.6	23.1	21.7	23.9	23.8	21.1	22.2	22.5	222.5	243.7	190.4
	10	15.5	16.3	17.6	18.1	16.7	18.9	18.8	16.1	17.2	17.5	172.5	193.7	145.2

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	41.0
Precipitation - Reference Evapotranspiration	-	-	-37.1
Number of Rainy Days	3.0	0.0	0.6
Number of Dry Days	23.0	56.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



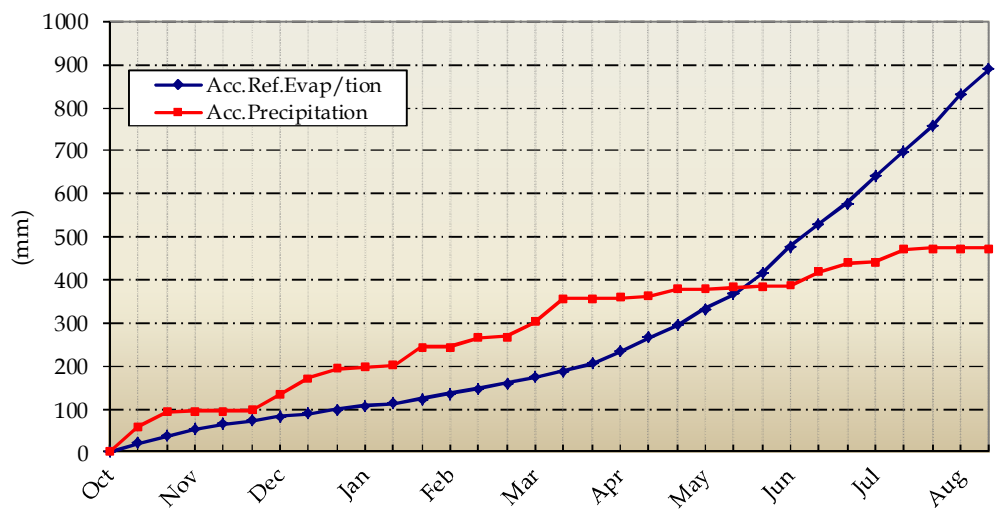
Larisa

1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	34.0	34.2	32.6	33.6	35.2	35.2	34.6	33.2	35.8	35.4	34.4	39.8	33.7
	Min	27.4	22.6	18.8	18.8	20.0	20.8	24.0	20.0	17.6	17.6	20.8	20.9	19.3
Relative Humidity	Max	49	69	67	76	64	71	69	81	68	60	67	70	81
	Min	25	23	31	26	23	24	30	26	16	15	24	22	30
Soil Temperature at 10 cm	06 UTC	29.4	28.8	29.2	28.4	28.6	28.8	29.2	29.4	28.6	28.4	28.9	-	27.6
	12 UTC	30.4	30.2	30.0	30.2	30.0	30.0	30.6	30.0	30.4	30.0	30.2	-	29.5
Sunshine Duration		9.8	11.1	9.2	10.8	11.1	9.8	10.4	11.2	11.0	7.6	10.2	10.3	10.5
Precipitation														6.9
Evaporation		13.2	10.0	13.7	11.7	10.3	10.7	11.5	11.6	6.2	12.8	111.7	114.5	98.8
Growing Degrees	5	25.7	23.4	20.7	21.2	22.6	23.0	24.3	21.6	21.7	21.5	225.7	253.6	194.0
	10	20.7	18.4	15.7	16.2	17.6	18.0	19.3	16.6	16.7	16.5	175.7	203.6	149.0

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	60.1	66.7	54.9
Precipitation - Reference Evapotranspiration	-60.1	-66.7	-48.0
Number of Rainy Days	0.0	0.0	1.5
Number of Dry Days	28.0	21.0	-

The missing info in the tables are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



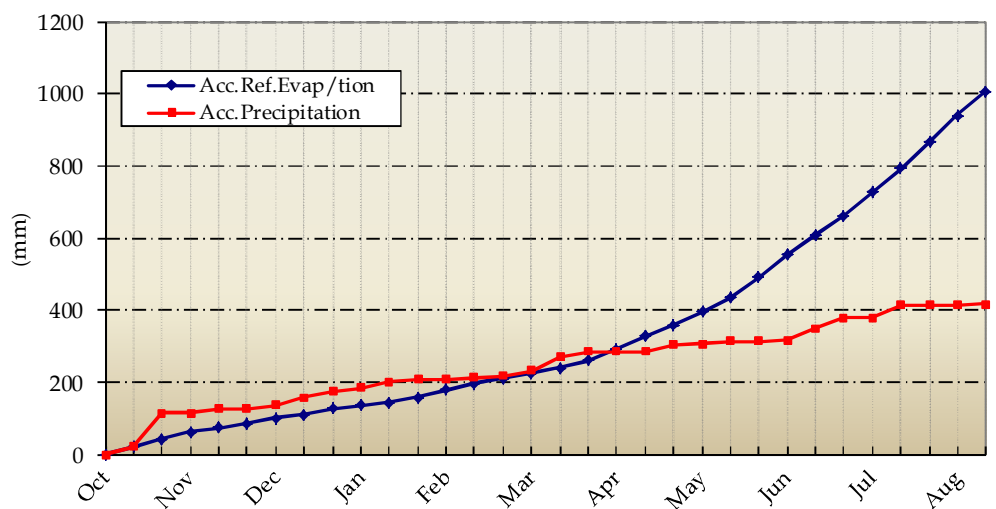
Mikra

1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	32.4	33.6	33.0	33.2	34.5	34.4	33.4	35.4	34.1	33.2	33.7	37.2	32.7
	Min	26.1	20.4	21.4	22.4	22.8	23.9	24.8	23.2	21.9	21.7	22.9	23.1	21.5
Relative Humidity	Max	48	71	77	82	75	69	78	85	68	59	71	72	75
	Min	29	28	35	31	28	34	39	19	23	36	30	29	35
Soil Temperature at 10 cm	06 UTC	29.2	28.4	28.8	29.0	28.8	28.4	29.8	29.2	28.6	28.4	28.9	31.1	28.3
	12 UTC	30.8	30.6	31.0	31.0	31.2	31.6	31.4	31.4	31.2	31.6	31.2	34.1	33.0
Sunshine Duration		12.2	13.1	11.2	10.2	12.5	11.4	10.5	13.1	12.3	6.2	11.3	12.0	10.6
Precipitation					0.0			0.3				0.3		11.5
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	95.6
Growing Degrees	5	24.3	22.0	22.2	22.8	23.7	24.2	24.1	24.3	23.0	22.5	232.9	251.2	201.4
	10	19.3	17.0	17.2	17.8	18.7	19.2	19.1	19.3	18.0	17.5	182.9	201.2	155.9

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	67.4	73.8	44.3
Precipitation - Reference Evapotranspiration	-67.1	-73.8	-32.8
Number of Rainy Days	1.0	0.0	1.4
Number of Dry Days	28.0	17.0	-

The missing info in the tables are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



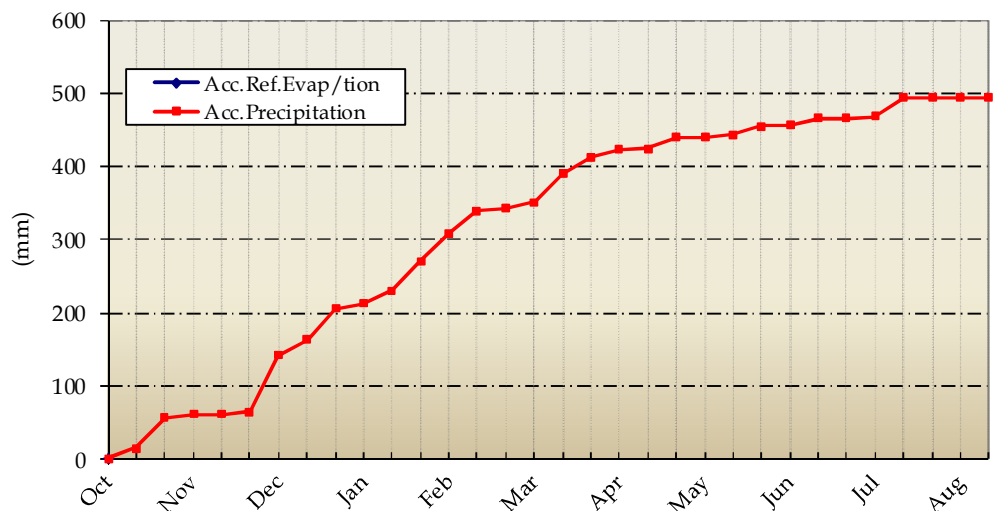
Tanagra

1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	32.2	31.6	30.7	31.4	31.6	32.0	30.6	30.4	32.1	31.2	31.4	38.3	32.4
	Min	22.0	21.0	19.9	21.3	21.0	21.8	23.2	24.4	23.5	20.4	21.8	21.9	20.4
Relative Humidity	Max	62	62	65	68	62	55	62	53	48	52	59	53	68
	Min	34	23	27	28	29	30	28	34	19	26	28	14	27
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		11.6	13.3	13.3	13.0	13.1	13.1	12.8	12.8	12.9	12.9	12.9	10.8	11.8
Precipitation														4.5
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	97.2
Growing Degrees	5	22.1	21.3	20.3	21.4	21.3	21.9	21.9	22.4	22.8	20.8	216.2	250.8	186.5
	10	17.1	16.3	15.3	16.4	16.3	16.9	16.9	17.4	17.8	15.8	166.2	200.8	143.0

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	-
Number of Rainy Days	0.0	0.0	0.5
Number of Dry Days	31.0	56.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



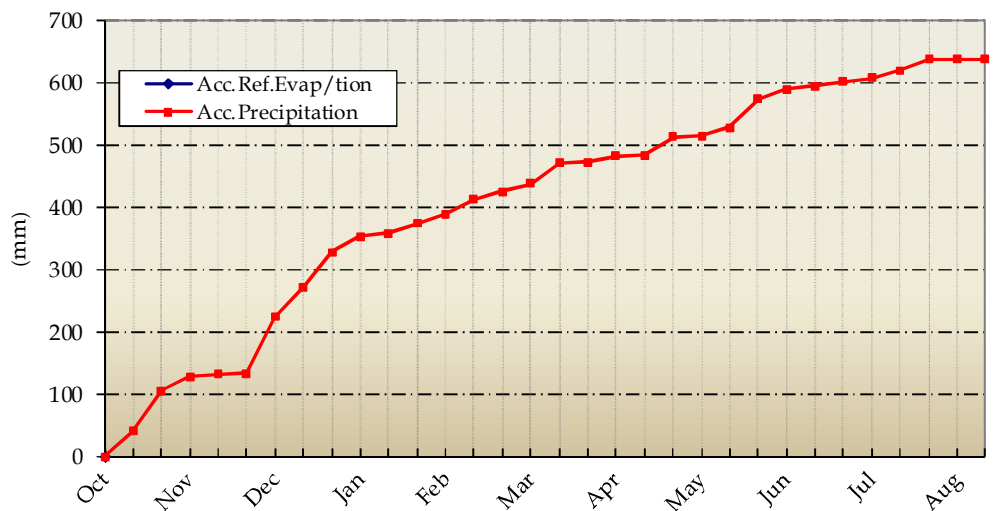
Tripoli

1st 10-day period (1-10/08/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	31.8	31.3	31.2	31.3	31.8	32.1	30.1	30.9	31.2	31.1	31.3	37.1	31.7
	Min	15.7	16.7	14.3	16.9	13.8	14.2	16.1	20.4	20.0	15.1	16.3	16.8	15.3
Relative Humidity	Max	88	88	90	66	73	80	79	68	55	62	75	77	83
	Min	29	23	23	20	19	21	29	24	17	15	22	14	26
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	25.9
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	29.7
Sunshine Duration		9.4	9.3	12.8	12.7	11.6	10.7	10.5	12.4	12.5	12.5	11.4	10.3	10.6
Precipitation													0.7	4.8
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	67.4
Growing Degrees	5	18.8	19.0	17.8	19.1	17.8	18.2	18.1	20.7	20.6	18.1	188.0	219.6	145.7
	10	13.8	14.0	12.8	14.1	12.8	13.2	13.1	15.7	15.6	13.1	138.0	169.6	106.2

1st 10-day period (1-10/08/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	57.3	50.6	36.2
Precipitation - Reference Evapotranspiration	-57.3	-49.9	-31.4
Number of Rainy Days	0.0	2.0	1.1
Number of Dry Days	28.0	43.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration





◆ **List of Symbols and Abbreviations**

Reference Evapotranspiration ETo (mm):

Calculated by the FAO Penman-Montieth equation

$$ET_0 = \frac{0.408 * \Delta * (R_n - G) + \gamma * \frac{900}{T + 273} * u_2 * (e_s - e_a)}{\Delta + \gamma * (1 + 0.34 * u_2)}$$

using 10-day step.

R_n is estimated from sunshine measurements and G assumed to be zero.

Growing Degrees: Degrees with mean temperature exceeding the base of 5 or 10 °C.

Number of Rainy Days: Number of days with precipitation of at least 0.1 mm.

Number of Dry Days: Number of dry days recorded since the last rainy day.

Past Years Mean Values 1991-2020 (Evaporation, Reference Evapotranspiration, Max and Min Relative Humidity 2005-2020)

Mesurements Units

- ◆ Temperature : °C
- ◆ Relative Humidity : %
- ◆ Soil Temperature : °C
- ◆ Sunshine Duration : Hours
- ◆ Precipitation : mm
- ◆ Evaporation (Pan) : mm
- ◆ Growing Degrees : °C

UTC (Universal Time coordinates) in Greece

- ◆ Winter : Time(UTC) = Local time - 2
- ◆ Summer : Time(UTC) = Local time - 3

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ΜΕΤΕΩΡΟΛΟΓΙΚΗ
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